APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,134	07/08/2003	Kenichi Sakamoto	501.37526CX1	5988

24956 7590 07/09/2008	EXAMINER
MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C. 1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314	LEVITAN, DMITRY

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/614,134	SAKAMOTO ET AL.
	Examiner	Art Unit	
	Dmitry Levitan	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _01 May 2008_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _2-19 and 21-23_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _2-19 and 21-23_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Amendment, filed 5/01/08, has been entered. Claims 2-19 and 21-23 remain pending.

Claim Rejections - 35 USC § 103

1.   Claims 2-19, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

McCloghrie (US 6,035,105) in view of Admitted Prior Art (Use of IPsec protocol in IP networks,

Background of the invention, pages 1:14 –2:7).

2.   Regarding claims 2, 5, 6, 9 and 10, McCloghrie substantially teaches the limitations of

claims:

A packet communication apparatus, method and system to transmit a packet from a first network

to a second network (LAN switch 103 and two networks 102 on Fig. 1 and 2:33-49, each

network comprises appropriate VLAN), wherein the packet includes destination address

(inherently part of any packet, because a destination address is essential for packet routing) and a

Virtual Private Network/VPN identifier (each VLAN identifies each frame/packet with a VLAN

identifier 1:50-65, shown on Fig. 1 and 2 as tag 107) used to compose first VPN in the first

network comprising:

A packet generating unit/router which generates a second VPN identifier used to

compose a second VPN in the second network based on the destination address and information

in the first VPN identifier (LAN switch 103 on Fig. 1 and 3:7-14 generating a second header by

changing tag 107 as shown on Fig. 2 and 3:49-67, changing the first VLAN identifier to a second

VLAN identifier 1:59-63); and

A transmitter, which transmits a packet having thereto said second VPN identifier (LAN

switch 103 on Fig. 1 and 3:7-14 changing VLAN identifier 1:59-63)

wherein the first VPN is interconnected to the plurality of VPNs in the second network (first

VLAN 106, shown on an upper portion of Fig.1, interconnected through LAN switch 103 to a

second network 102, shown on the bottom portion of Fig. 1, comprising multiple VLANs with

unique names, as shown on Fig. 3 and disclosed on 5:35-47).

McCloghrie teaches the networks as LANs utilizing the packets with MAC address

(disclosed on 4:33-44).

McCloghrie does not teach implementing his method in IP environment, wherein the

packets are IP packets, comprising IP address.

Admitted Prior Art teaches composing Virtual Private Networks in IP environment (using

IPsec for identifying packets belonging to own company network to protect the VPN from the

attacks of malicious users, Background 2:1-7, wherein IP packets inherently comprise IP

addresses because IP addresses are essential for the IP network operation).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add using IPsec protocol, comprising IP packets with IP addresses of Admitted

Prior Art to the system of McCloghrie to implement the method in widely used IP networks, like

Internet.

In addition, regarding claim 6, McCloghrie teaches receiving the packet (3:7-14).

3.   Regarding claims 3, 7 and 11, McCloghrie teaches replacing the first identifier with the

second identifier (VLAN identifier replacement process 1:59-63).

4.   Regarding claims 4, 8 and 12, McCloghrie teaches a route decision processing unit (LAN switch 103) which routes the packet to the second network according to the destination address (MAC address 4:33-44) and information in the first header (VLAN identifier/tag 107 4:62-64) using IP address of Admitted Prior Art instead of MAC address, as shown above.

5.   Regarding claims 13, 16, 17 and 21, McCloghrie substantially teaches the limitations of claims:

A packet communication apparatus, method and system to transmit a packet from a first network to a second network (LAN switch 103 and two networks 102 on Fig. 1 2:33-49, each network comprises appropriate VLAN), wherein the packet includes destination address (inherently part of any packet, because a destination address is essential for packet routing) and a first VPN identifier (each VLAN identifies each frame/packet with a VLAN identifier 1:50-65, shown on Fig. 1 and 2 as tag 107) used to compose first VPN in the first network comprising:

An index and packet generating unit/router which generates a second VPN identifier used to compose a second VPN network in the second network based on the index, as the index is based on the destination address and the first identifier (LAN switch 103 on Fig. 1 and 3:7-14 generating a second VLAN identifier by changing index/tag 107 as shown on Fig. 2 and 3:49-67, based on the index/tag in table 206 as shown on Fig. 2 and 5:2-33, according to the VLAN identifier replacement process 1:59-63); and

A transmitter which transmits a packet having thereto said second VPN identifier (LAN switch 103 on Fig. 1 and 3:7-14).

McCloghrie teaches networks as LANs utilizing the packets with MAC address (4:33-44). McCloghrie does not teach networks implementing IP and the IP packets including IP address.

Admitted Prior Art teaches composing Virtual Private Networks in IP environment (using

IPsec for identifying packets belonging to own company network to protect the VPN from the

attacks of malicious users, Background 2:1-7, wherein IP packets inherently comprise IP

addresses because IP addresses are essential for the operation of IP network).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add using IP networks and packets with IP address of Admitted Prior Art to the

system of McCloghrie to implement the method in widely used IP networks.

6.   Regarding claims 15, 19 and 23, McCloghrie teaches a route decision processing unit

(LAN switch 103) which routes the packet to the second network according to destination

address (MAC address 4:33-44) and information in the first header (VLAN identifier/tag 107

4:62-64) using IP address of Admitted Prior Art instead of MAC address, as shown above.

7.   Regarding claims 14, 18 and 22, McCloghrie teaches replacing the index with a second

VPN identifier (removing an identifier/tag of the first network with appropriate

encapsulation/header and identifier for the second network 1:50-67 and 2:1-6).

Response to Arguments

1.   Applicant's arguments with respect to claim 2-19 and 21-23 have been considered but are

moot in view of the new ground(s) of rejection.

On pages 10 and 11 of the Response, Applicant argues that new limitations, directed to "the first

VPN is interconnected to a plurality of VPNs in the second network" make the claims patentable.

Examiner respectfully disagrees.

McCloghrie clearly teaches using multiple VLANs/VPNs as indicated above in the rejection of

the independent claims.

In addition, McCloghrie teaches LAN switch 103 using a table 206 for forwarding packets to

multiple VLANs, wherein each row 207 is designated for a VLAN, as shown on Fig. 2 and

disclosed on 5:4:63-5:20.

On pages 12 and 13 of the Response, Applicant argues that there is no suggestion to combine the

references.

Examiner respectfully disagrees.

In response to applicant's argument that there is no suggestion to combine the references, the

examiner recognizes that obviousness can only be established by combining or modifying the

teachings of the prior art to produce the claimed invention where there is some teaching,

suggestion, or motivation to do so found either in the references themselves or in the knowledge

generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5

USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Applicant admits common knowledge of techniques of using IPsec protocol

to make up a Virtual Private network.

In addition, Kent at Security Architecture for the Internet Protocol, RFC 2401, November

1998, teaches using IP headers for the protocol routines on page 9.

Therefore, implementing a known protocol techniques in the method of McCloghrie

would have been obvious to one of ordinary skill in the art at the time the invention was made.

The Supreme Court opinion in KSR case (04-1350, U.S. Apr. 30, 2007), rejected the

rigid application of the test, requiring "teaching, suggesting or motivation" in the prior art which

would lead one of the ordinary skills in the art to combine the prior art teachings.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

was made to add using IP networks and packets with IP address of Admitted Prior Art to the

system of McCloghrie to implement the method in widely used IP networks.

On pages 12 of the Response, Applicant argues that McCloghrie teaches using only VLAN

technology and this fact teaches away from using IP technology.

Examiner respectfully disagrees.

Multiple protocols are known and used for network communications, therefore using one of

them, like LAN, does not teaches away from using another network protocol, like IP.

Applicant arguments on pages 12-14, regarding difficulties of implementing teaching of

McCloghrie in IP environment are irrelevant, because they are not directed to the claimed

subject.

In addition, none of the claims comprise limitations, which are highlighted on page 14, and

directed to "a header deciding unit".

Conclusion

1.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The

examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dmitry Levitan/   Dmitry Levitan
Primary Examiner, Art Unit 2616   Primary Examiner
                                                          Art Unit 2616